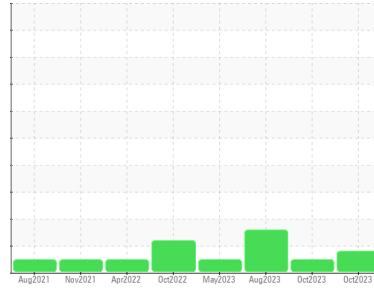
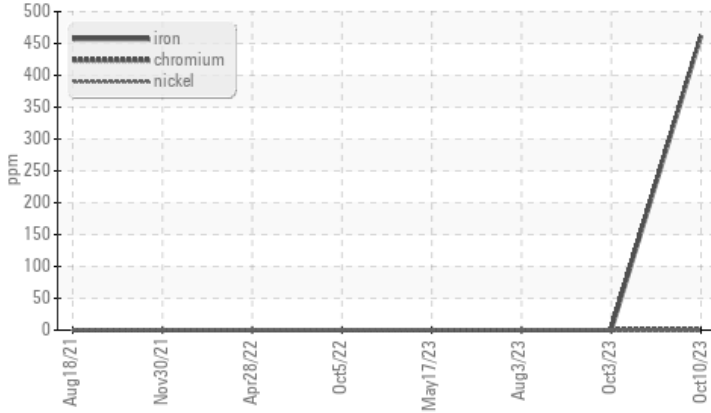


Area
SMART OIL 6000
Machine Id
HERTZ VD003643 - SUNRISE COAL
Component
Compressor
Fluid
SMARTOIL 6000 (--- GAL)



COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



RECOMMENDATION

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | NORMAL | ATTENTION |
|---------------|-----|-------------|-----|-----------------|--------|-----------|
| Iron | ppm | ASTM D5185m | >50 | ▲ 462 | 0 | 0 |

Customer Id: UCHERCHA
Sample No.: UHK05981282
Lab Number: 05981282
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------------|--------|------|---------|---|
| Inspect Wear Source | --- | --- | ? | We advise that you inspect for the source(s) of wear. |
| Change Filter | --- | --- | ? | We recommend you service the filters on this component. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |

HISTORICAL DIAGNOSIS

03 Oct 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



03 Aug 2023 Diag: Jonathan Hester

DEGRADATION



We advise that you check for a possible overheat condition. The oil is near the end of its useful service life, recommend schedule an oil change. We recommend an early resample to monitor this condition. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. The AN level is at the top-end of the recommended limit.

view report



17 May 2023 Diag: Don Baldrige

NORMAL

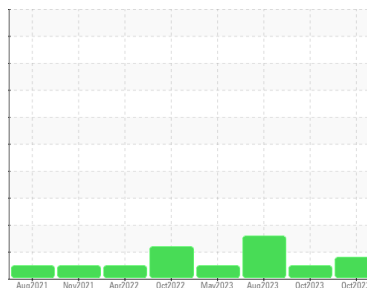


Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area
SMART OIL 6000
 Machine Id
HERTZ VD003643 - SUNRISE COAL
 Component
Compressor
 Fluid
SMARTOIL 6000 (--- GAL)



DIAGNOSIS

Recommendation
 We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
 The iron level is abnormal. All other component wear rates are normal.

Contamination
 There is no indication of any contamination in the oil.

Fluid Condition
 The AN level is acceptable for this fluid.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | UHK05981282 | UHK05981281 | UHK05918742 |
| Sample Date | Client Info | 10 Oct 2023 | 03 Oct 2023 | 03 Aug 2023 |
| Machine Age | hrs | 24192 | 24108 | 22652 |
| Oil Age | hrs | 2000 | 0 | 8000 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | ABNORMAL | NORMAL | ATTENTION |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|-----------------|--------------|----------|----|
| Iron | ppm | ASTM D5185m >50 | ▲ 462 | 0 | 0 |
| Chromium | ppm | ASTM D5185m >10 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m >25 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m >25 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >50 | 1 | <1 | 0 |
| Tin | ppm | ASTM D5185m >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|----------------|------------|----------|----|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 4 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185m 20 | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 251 | 209 | 75 |
| Zinc | ppm | ASTM D5185m | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 374 | 294 | 60 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|-----------------|--------------|----------|---|
| Silicon | ppm | ASTM D5185m >25 | 17 | 0 | 0 |
| Sodium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 0 | 0 | 0 |

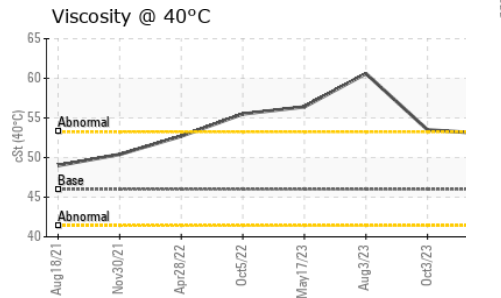
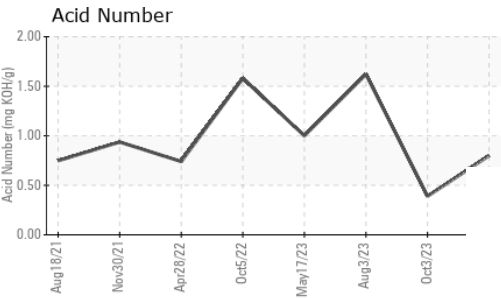
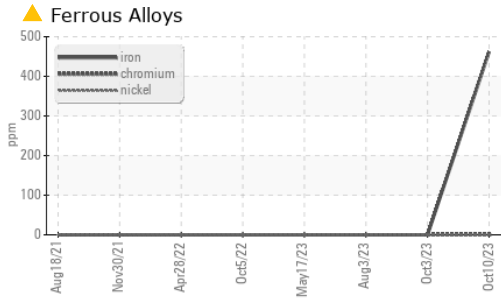
FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | |
|------------------|------------|------------|-------------|----------|---------------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.80 | 0.39 | ▲ 1.62 |

VISUAL

| method | limit/base | current | history1 | history2 | |
|------------------|------------|---------------|--------------|----------|-------|
| White Metal | scalar | *Visual NONE | HEAVY | NONE | NONE |
| Yellow Metal | scalar | *Visual NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | NEG | NEG | NEG |

OIL ANALYSIS REPORT

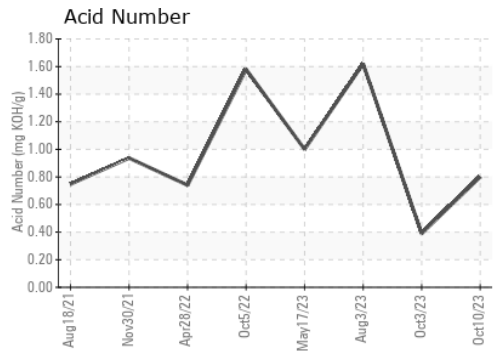
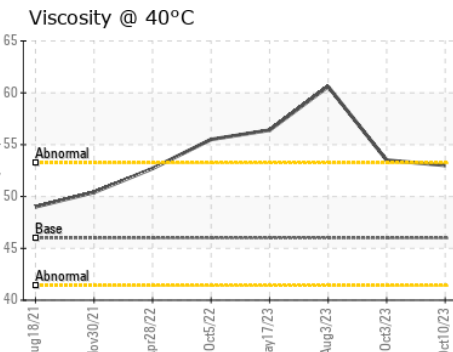
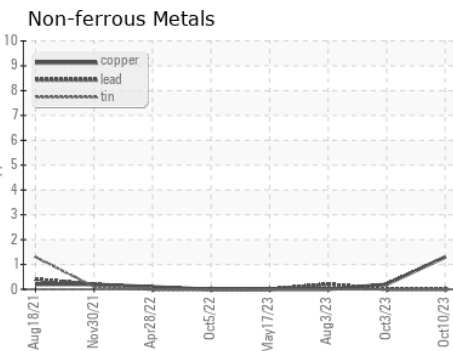
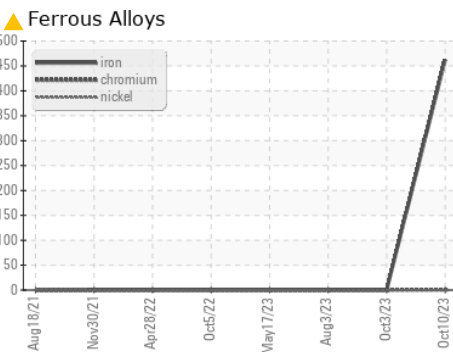


| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 46 | 53.0 | 53.5 | ▲ 60.6 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : UHK05981282
Lab Number : 05981282
Unique Number : 10698577
Test Package : IND 2

HERTZ KOMPRESSOREN USA INC
 3320 SERVICE ST
 CHARLOTTE, NC
 US 28206
 Contact: WARRANTY
 warranty@hertz-kompressoren.us
 T: (704)579-5900
 F: (704)579-5997

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)